SONY.

AV Control Amplifier

Operating Instructions

TA-E731
TA-E731X

OWNER'S RECORD

The model and serial numbers are located at the rear.
Record serial number in the space provided below.
Refer to these numbers whenever you call upon your Sony
dealer regarding this product.

Model No. TA-E731   Serial No._____
Model No. TA-E731X   Serial No._____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

⚡	**CAUTION** RISK OF ELECTRIC SHOCK DO NOT OPEN	⚠

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,

DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

⚡ This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

⚠ This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

* The graphical symbols are on the rear enclosure.

INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

CAUTION

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada

CAUTION :
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

This apparatus complies with the Class B limits for radio noise emissions set out in Radio Interference Regulations.

Precautions

On safety
- Operate the unit only on 120 V AC, 60 Hz.
- Should any solid object or liquid fall into the unit, unplug it and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.

On installation
- Place the unit on a level surface.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Good air circulation is essential to prevent internal heat build-up in the unit. Place the unit in a location with adequate air circulation. Do not place the unit on a soft surface, such as a rug that would block the ventilation holes on the bottom.
- Do not place anything on top of the cabinet. The top ventilation holes must be unobstructed for the proper operation of the unit and to prolong the life of its component.

On cleaning the cabinet
Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

On repacking
Do not throw away the carton and the packing material. It makes an ideal container to transport the unit in.

If you have any question or problem concerning your unit, please consult your nearest Sony dealer.

For detailed precautions, see the leaflet "IMPORTANT SAFEGUARD". (Model for U.S.A.)
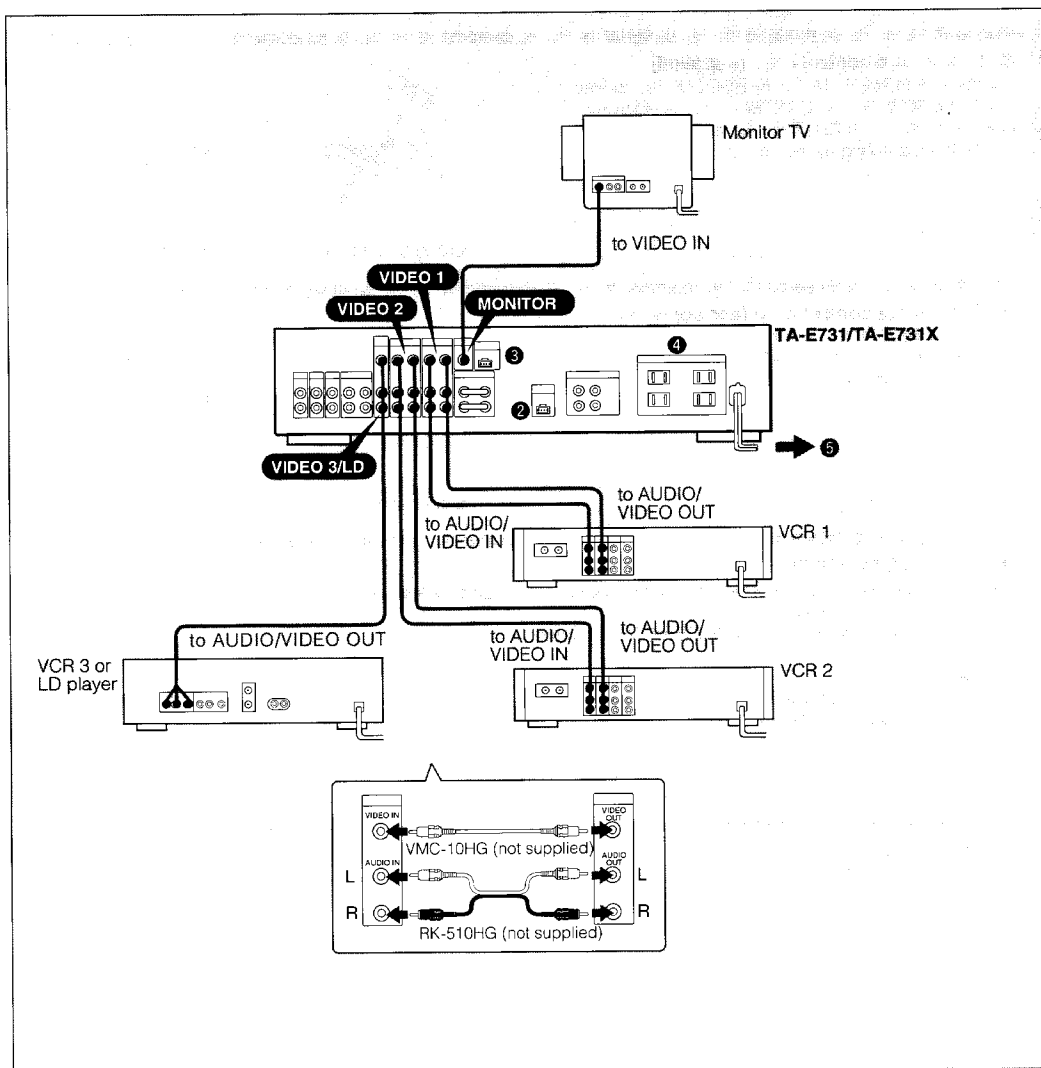
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Connections

- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) of the FRONT OUTPUT terminals and white ones for the left channel (L) of that terminals. And also, red plugs and jacks are for REAR terminal and white ones for CENTER terminal.
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- The numbers correspond to the following details on page 6.

Connecting Audio Equipment

Note
If the CD player has the FIXED OUT jacks, connect this unit to those jacks.

Monitor TV

to VIDEO IN

VIDEO 1

VIDEO 2

MONITOR

TA-E731/TA-E731X

VIDEO 3/LD

to AUDIO/
VIDEO OUT

to AUDIO/
VIDEO IN

VCR 1

VCR 3 or
LD player

to AUDIO/VIDEO OUT

to AUDIO/
VIDEO IN

to AUDIO/
VIDEO OUT

VCR 2

VIDEO IN

VIDEO
OUT

VMC-10HG (not supplied)

AUDIO IN

AUDIO
OUT

L

L

R

R

RK-510HG (not supplied)
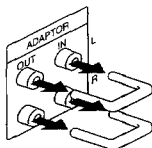
5

Connections

❶ Connecting a graphic equalizer, etc.

Before connecting the equipment such as a graphic equalizer, remove the shorting plugs.
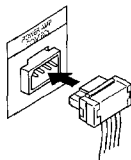

Note

When the equipment such as a graphic equalizer is not connected, be sure to install the shorting plugs. Otherwise, no sound is heard from the speakers.

❷ Power amp control cord (supplied)

Connect the POWER AMP CONTROL OUT jack on the rear to the POWER AMP CONTROL IN jack of the AV power amplifier TA-N731. The output of the AV power amplifier is controlled by the unit.
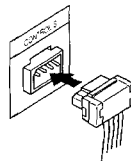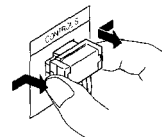

Push in until it clicks.
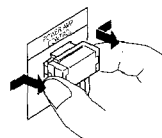
To disconnect, pull it out by grasping both sides of the plug.

❸ Flat remote control cord (not supplied)

Connect to the CONTROL S IN jack of other Sony equipment with the flat remote control cord for whole audio system remote control.

Push in until it clicks.

To disconnect, pull it out by grasping both sides of the plug.

❹ AC OUTLETs (SWITCHED)

Use these to power audio component whose total power consumption is less than the wattage indicated on the AC outlets.
These outlets are controlled by the SYSTEM POWER switch.

CAUTION

Do not connect any electrical home appliances such as an electric iron, fan, TV or other high wattage equipment to these AC outlets.

❺ Power cord

Connect to a wall outlet.

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- When you manipulate buttons on the commander, be sure to point the head of the commander toward the remote control sensor on the front of the AV control amplifier.
- If there is an obstacle between the AV control amplifier and the head of the commander, the AV control amplifier may not be controlled remotely.
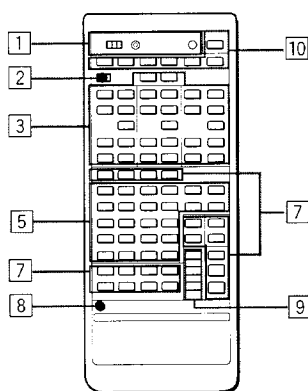
Programmable Remote Commander RM-P312/RM-P332

The TA-E731 is supplied with the RM-P312.
The TA-E731X is supplied with the RM-P332.

The RM-P312/RM-P332 can "learn" various functions of other remote commanders which use infrared rays. When the mode selector is set to SONY STD (Sony standard), buttons on the RM-P312/RM-P332 can be used to perform the functions below:
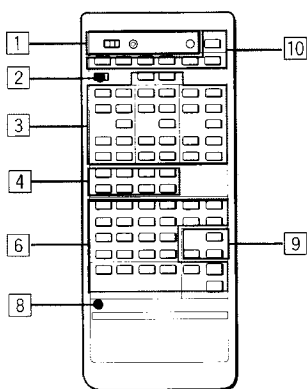
RM-P312

RM-P332

[1] **Program control section**
Mode selector and indicator
SONY STD: To control Sony equipment.
USER STD: To control equipment whose remote control functions are stored.
LEARN: To store functions of other remote commanders emitting infrared rays.
PROGRAM CLEAR button: Clears the stored functions.

[2] **MODE selector**
Selects the function mode on the remote commander.
1: Selects the functions indicated in light gray such as DECK, DAT, CD player.
For RM-P312, this also selects the surround mode of the amplifier.
2: Selects the functions indicated in blue such as VCR, LDP (Laser disc player) and TV.

[3] **Tape deck/DAT/VCR control section**
ANT (antenna) TV/VTR buttons: Selects the output signal from the antenna terminal on the VCR, either a TV signal or VCR programs.
VTR CH (channel) +/– buttons: Select channel on the VCR.
◄◄/►►: Fast winding or forwarding
●: Recording
◄/►: Play
■: Stop
Ⅱ: Pause
REC MODE REV/FWD buttons:
For reverse recording, press REV and ● together.
For forward recording, press FWD and ● together.

[4] **CDP/LDP control section (RM-P312 only)**
The combined CD/LD player can be controlled with LDP position.
D.(disc) SKIP: Disc skip (for a CD player equipped with a multi-disc changer)
►: Play
Ⅱ: Pause
■: Stop
◄◄/►►: Manual search
I◄◄/►►I: Locates a desired selection

[5] **CDP/LDP/TV control section (RM-P332 only)**
The combined CD/LD player can be controlled with LDP position.
DISC SKIP –/+: Disc skip (for a CD player equipped with a 100-disc changer)
►: Play
Ⅱ: Pause
■: Stop
◄◄/I◄◄,►►/►►I: When the LD mode is selected, these buttons function as ◄◄ and ►►.
When the CD mode is selcted, these buttons function as I◄◄ and ►►I.
◄◄/►►: Manual search.
I◄◄/►►I: Locates a desired selection.

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CONTINUE: Selects the continuous play mode.
SHUFFLE: Selects the shuffle play mode.
PROGRAM: Selects the program play mode.
DISC: Selects the disc number with the numeric buttons and ENTER button.
TRACK: Selects the track number with the numeric buttons and ENTER button.
GROUP: Selects the group number with the numeric buttons and ENTER button.
TV/VIDEO button: Selects the input signal of the TV. (for TV)
Program number (1 to 10/0) and ENTER buttons: Select the channel of TV porgram or the selection of CD player.

See the operating instruction of a CD player equipped with a 100-disc changer for a detail.

6 Amplifier/TV section (RM-P312 only)
TV/VIDEO button: Selects the input signal of the TV. (for TV)
Program number (1 to 0) and ENTER buttons: Select the channel. (for TV)
SURROUND mode selectors (for the AV control amplifier)
ON/OFF: Turns on/off the surround mode.
MODE: Selects the surround mode.
T.(test) TONE: Outputs test tone to each speakers in succession.
DELAY: Adjusts the delay time.
FUNCTION selectors: Select an input source of the AV control amplifier. (for the AV control amplifier)
CENTER VOL /TV VOL +/− buttons: Control the volume of center speaker or TV. (The CENTER VOL +/− buttons function for the AV control amplifier.)
REAR VOL /TV CH +/− buttons: Control the volume of rear speakers or channel of TV. (The REAR VOL +/− buttons function for the AV control amplifier.)
DBFB button: Turns on/off the DBFB (Dynamic Bass Feed Back). (for the AV control amplifier)
MASTER VOL +/− buttons: Control the amplifier's master volume. (for the AV control amplifier)

7 Amplifier section (RM-P332 only)
SURROUND mode selectors (for the AV control amplifier)
ON/OFF: Turns on/off the surround mode.
MODE: Selects the surround mode.
T.(test) TONE: Outputs test tone to each speakers in succession.
DELAY: Adjusts the delay time.
FUNCTION selectors: Select an input source of the AV control amplifier. (for the AV control amplifier)
CENTER VOL /TV CH +/− buttons: Control the volume of center speaker or channel of TV. (The CENTER VOL +/− buttons function for the AV control amplifier.)
REAR VOL /TV VOL +/− buttons: Control the volume of rear speakers or TV. (The REAR VOL +/− buttons function for the AV control amplifier.)
DBFB button: Turns on/off the DBFB (Dynamic Bass Feed Back). (for the AV control amplifier)
MASTER VOL +/− buttons: Control the amplifier's master volume. (for the AV control amplifier)

8 Reset button
Reset the commander to the initial state.

9 Tuner control section
SHIFT button: Selects a memory page.
TUNER PRESET +/− buttons: Select a preset station.

10 Power control section
SYSTEM OFF button: Turns off the power of the whole system: LDP, VCR, TV, and AUDIO.
LDP/VTR1/VTR2/VTR3/TV/AUDIO POWER buttons: Control the power of each unit.

Note on the ● (recording) button under 3 Tape deck/DAT/VCR control section
If your recorder is of such type as pressing ● puts it in recording pause mode, first press ● on this commander and then **II**.
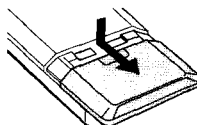
Note
The ◄/► (play) buttons in 3, 4 and 5 and the SHIFT button and TUNER PRESET +/− buttons in 9 can function without pressing one of the FUNCTION buttons in 6, 7.

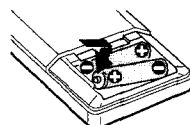**Notes on the CD player equipped with a 100-disc changer**
• If your CD player has the CD-1/CD-2/CD-3 switch on the rear panel, set the switch to CD-1.
• If your CD player has the TIMER switch, set the switch to OFF.

Inserting the Batteries

1 Open the cover. **2** Insert two size-AA (R6) batteries with correct polarity.

Battery life
About half a year of normal operation can be expected when using the Sony SUM-3 (NS) batteries.
When the batteries are exhausted, the commander can no longer operate the unit. Replace both batteries with new ones.
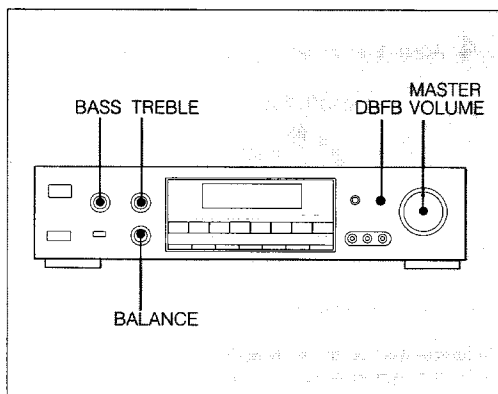
To avoid battery leakage
When the commander is not to be used for a long period of time, remove the batteries to avoid damage caused by battery leakage and corrosion.

To avoid malfunction of the remote commander
Avoid keeping the commander under extremely hot or humid location.

Adjusting the Sound

BASS TREBLE

MASTER
DBFB VOLUME

BALANCE

Adjusting Volume

To increase the volume, turn the MASTER VOLUME control clockwise.
To decrease it, turn the control counterclockwise.

Note
Turn down the volume before switching on the unit. This prevents damage to speakers.

Adjusting Left and Right Sound Balance

Adjust BALANCE control to correct stereo imaging when the speaker position is not symmetrical.

Adjusting the Tone from the Front Speakers

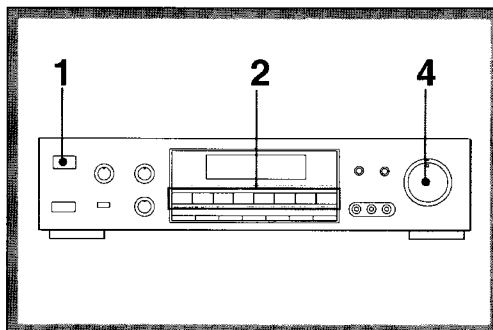To enhance treble or bass sound from the front speakers, turn the TREBLE or BASS control clockwise.
To attenuate them, turn the TREBLE or BASS control counterclockwise.

Reinforcing the Bass

To obtain powerful bass sound, press DBFB (Dynamic Bass Feed Back) button. The indicator on the display lights up.

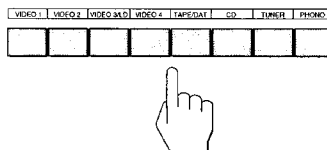# Listening to/Watching Program Sources

Basic Operation

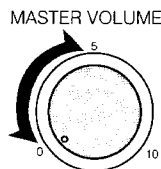
1 Press the SYSTEM POWER switch to turn on the unit.

SYSTEM
POWER

2 Select a program source.

| VIDEO 1 | VIDEO 2 | VIDEO 3/LD | VIDEO 4 | TAPE/DAT | CD | TUNER | PHONO |

3 Play the program source.

4 Adjust the volume.

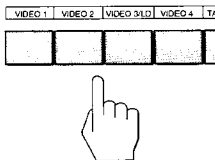MASTER VOLUME

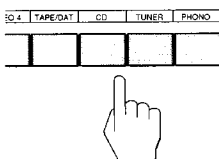**Combining the Video Image with the Sound from Another Program Source**

The unit allows you to combine a video image with sound from another audio program source as back ground music.
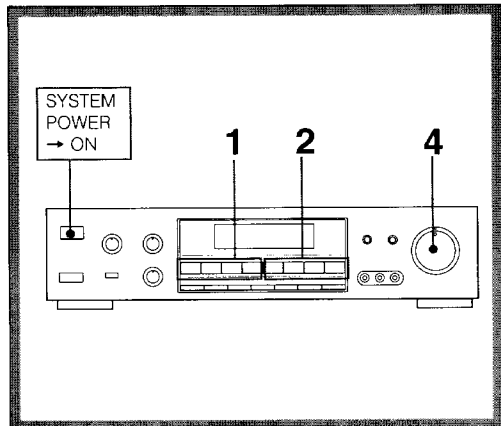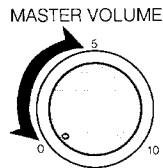

1 Select a video source.

2 Select an audio source.

3 Play both the video and audio program sources.
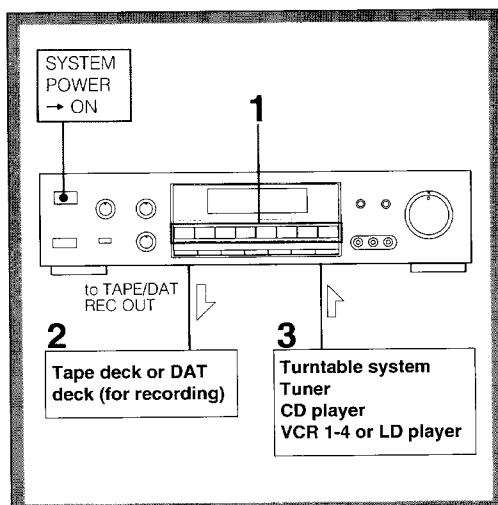
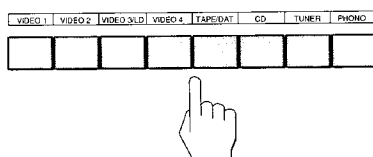**4** Adjust the volume.

MASTER VOLUME

To cancel the combining function
Select the desired video source again.

To watch a video source with the MONITOR number displayed on the monitor TV
Select the video source with FUNCTION selectors.

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Recording Audio Program Source

```
SYSTEM
POWER
→ ON
```



```
to TAPE/DAT
REC OUT
```

2 Tape deck or DAT deck (for recording)

3 Turntable system
Tuner
CD player
VCR 1-4 or LD player

1 Select a program source.

VIDEO 1	VIDEO 2	VIDEO 3/LD	VIDEO 4	TAPE/DAT	CD	TUNER	PHONO

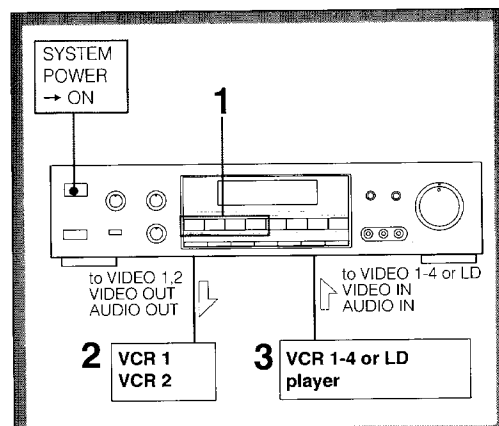**2** Set the tape deck or DAT deck to the recording mode.
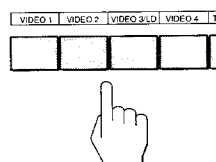
3 Play the selected program source.

Note
The settings of the MASTER VOLUME, TONE, DBFB, SURROUND, and BALANCE controls do not have any effect on recording.

Recording Video Program Source

You can operate two or more video or tape decks for recording at the same time as the audio (and video) signals of the program source are output simultaneously through all recording output jacks.

```
SYSTEM
POWER
→ ON
```



```
to VIDEO 1,2          to VIDEO 1-4 or LD
VIDEO OUT             VIDEO IN
AUDIO OUT             AUDIO IN
```

2 VCR 1
VCR 2

3 VCR 1-4 or LD player

1 Select a video source for VCR 1-4 or LD player.

VIDEO 1	VIDEO 2	VIDEO 3/LD	VIDEO 4	TA

2 Set the VCR 1 or VCR 2 in the recording mode.

3 Play the selected program source.

To record onto two tapes at a time – simultaneous recording
Set both the VCR 1 and VCR 2 to the recording mode.

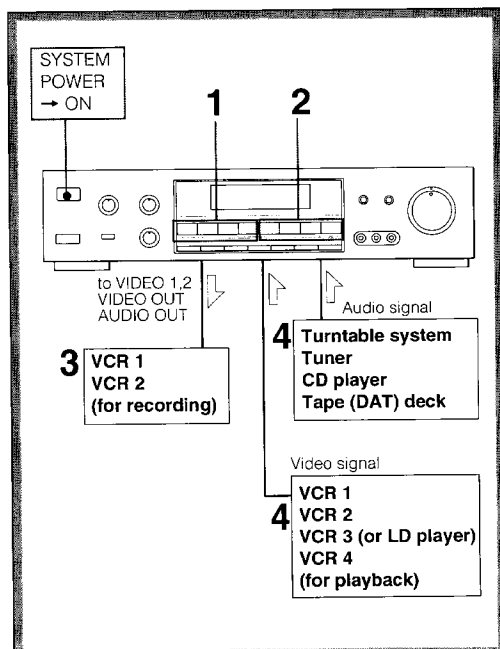**To record audio signal of video source onto a cassette tape**
The audio signal of the program source selected by the FUNCTION selectors is always output from the TAPE/DAT jacks. Set the tape (or DAT) deck connected to the TAPE/DAT jacks to the recording mode.

Note
Recording can be performed with a VCR except the VCR or LD player for playback.

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Editing Audio/Video Program Sources

During video tape editing, you can add the desired sound on the recording-side video tape from audio or video program source.



```
SYSTEM
POWER
→ ON                    1        2
```

to VIDEO 1,2
VIDEO OUT
AUDIO OUT   Audio signal

3
| VCR 1 |
| VCR 2 |
| (for recording) |

4
| Turntable system |
| Tuner |
| CD player |
| Tape (DAT) deck |

Video signal

4
| VCR 1 |
| VCR 2 |
| VCR 3 (or LD player) |
| VCR 4 |
| (for playback) |

1 Select a video source for VCR 1, VCR 2, VCR 3 (or LD player), or VCR 4 except the VCR for recording.

| VIDEO 1 | VIDEO 2 | VIDEO 3/LD | VIDEO 4 | TA |

2 Select an audio source.

| :O 4 | TAPE/DAT | CD | TUNER | PHONO |

3 Set the VCR 1 or VCR 2 (for recording) to the recording mode.

4 Play both the selected program sources.

12
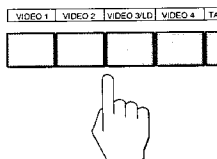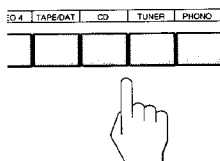
Basic Surround System

Two front and two rear speakers are necessary to enjoy the surround function.

Location of the rear speaker system

Front speaker (L)   Front speaker (R)

Rear speaker (L) for   Rear speaker (R) for
surround effect   surround effect
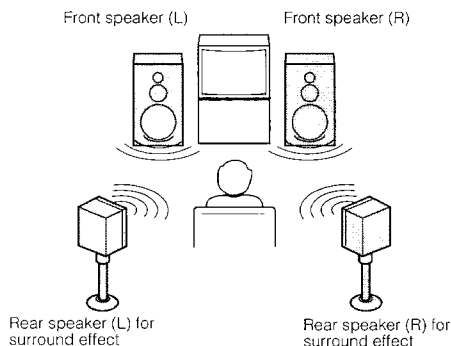
Selecting surround modes

DOLBY* (Dolby Surround)
Expands sound just like listening to it in a movie theater.

DOLBY PRO LOGIC
The Dolby Pro Logic Surround Decoder which has the same functions for playback, such as movie theaters and gives a theater-like experience in your listening room, naturally reproducing the audio sound field.

HALL (Hall Surround)
Provides reverberation effect that is produced in a concert hall.

SIMULATED (Simulated Surround)
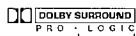Gives a simulated stereo effect to monaural sound.

To turn on or off the surround mode
Press the SURROUND button.

Note
No sound will be heard from the surround speakers, when the SURROUND button is set to off.

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* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. number 3,959,590; Canadian numbers 1,004,603 and 1,037,877. "DOLBY", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

□□ |DOLBY SURROUND| decoder reproduces the specially encoded
   P R O · L O G I C
surround sound of Dolby surround video programs.

Selecting the Speaker Operation Mode in the Dolby Pro Logic Function

One center speaker is required in addition to the basic four speakers for the Dolby Pro Logic surround system.
In the DOLBY surround mode, a speaker operation mode can be selected to match your speaker system.
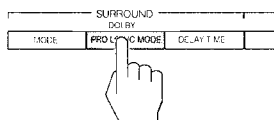Press PRO LOGIC MODE button to select the appropriate mode.
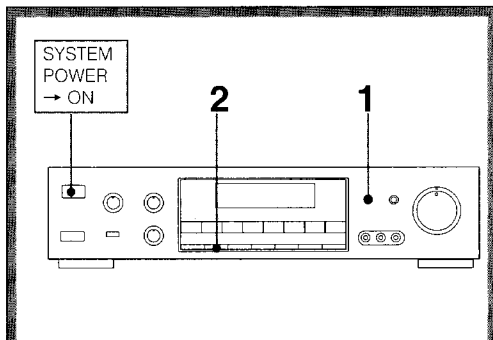
1 Press the SURROUND button so that the SURROUND ON/OFF indicators in the display window shift over to ON.

SURROUND

**2** Select the DOLBY PRO LOGIC mode according to your speaker system.

Each time the PRO LOGIC MODE button is pressed, the DOLBY PRO LOGIC mode is changed in the following order:
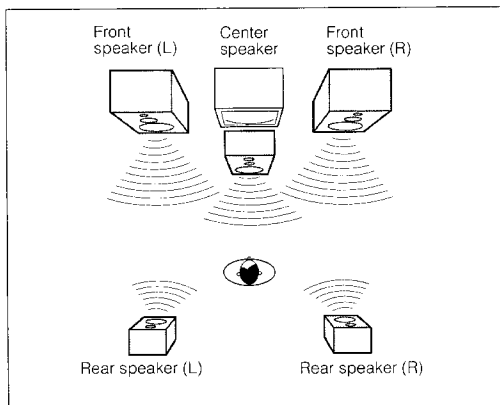┌→NORMAL → WIDE → 3 CH. → PHANTOM ┐

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NORMAL mode

When connecting smaller speaker than front speakers, such as that of TV for a center speaker. The bass sound of the center channel is output from the front speakers, as small speaker cannot produce enough bass.
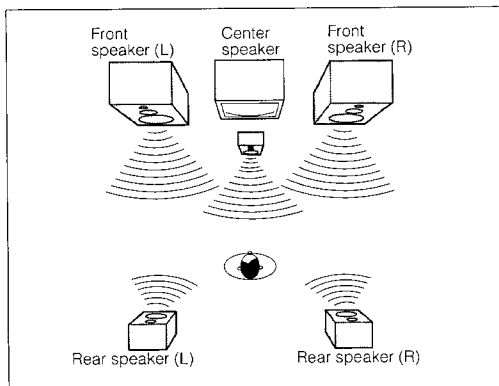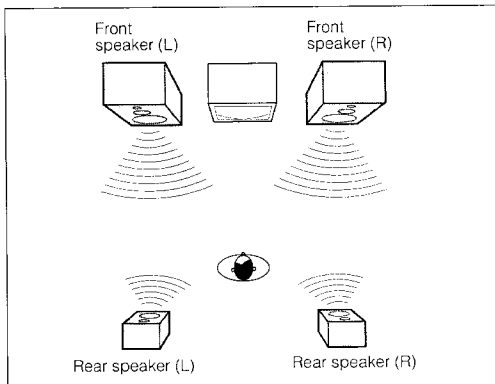

WIDE mode

When connecting the same size of speaker as front speakers for a center speaker.
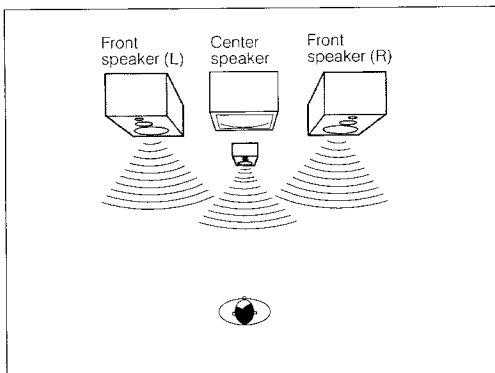

PHANTOM mode

When connecting only front and rear speakers. The sound of the center channel can be heard from the front speakers.
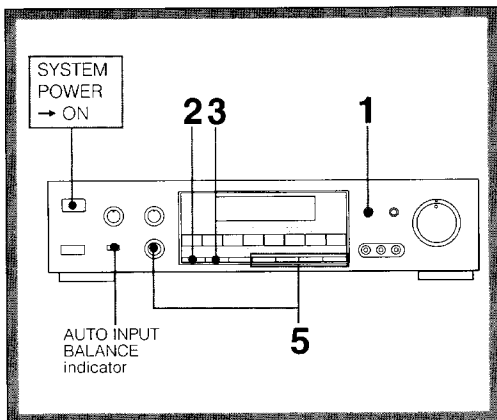

3 CH. mode

When connecting front speakers and a center speaker. The sound of the rear channels can be heard from the front speakers.

Note
The amount of the DBFB effect varies according to the Dolby Pro Logic mode.
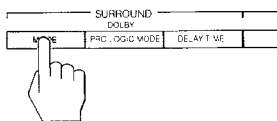
Adjusting the Surround Level for Dolby Surround System

```
SYSTEM
POWER         2 3        1
→ ON
```



```
AUTO INPUT
BALANCE        5
indicator
```

1 Press the SURROUND button so that the SURROUND ON/OFF indicators in the display window shift over to ON.

SURROUND

2 Select the DOLBY surround mode.

SURROUND
DOLBY
MODE | PRO LOGIC MODE | DELAY TIME

3 Select the DOLBY PRO LOGIC mode according to your speaker system.

SURROUND
DOLBY
MODE | PRO LOGIC MODE | DELAY TIME
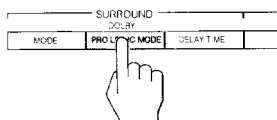
4 Press the T.TONE button on the remote commander.
(The T.TONE function is available only with the remote commander.)

5 Adjust the sound level of front, rear speakers and a center speaker.

For front speakers   For rear speakers For center speaker

BALANCE   REAR LEVEL   CENTER LEVEL
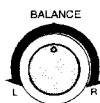
6 Press the T.TONE button on the remote commander again to set to off.

Automatic Input Balance
The input balance is automatically adjusted. When the adjustment is completed, the AUTO INPUT BALANCE indicator lights up.

Note
The display window has level indicators for rear speakers and center speaker. When distorted sound is seem to be output from the rear speakers or center speaker, adjust their levels independently so that the peaks of the signal levels may not reach the orange section.

Sequence of the test tone
In a system with a center speaker:
The test tone will be output automatically from the front left, center, front right, and the rear speakers in succession.

```
Front left    Center    Front right



           3 CH mode
   NORMAL and WIDE modes


   Rear left and right
```
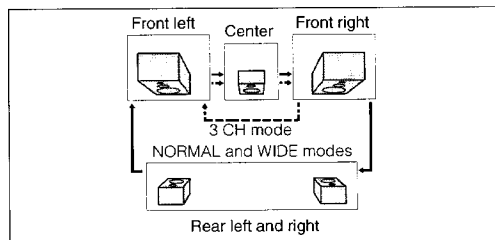
In a system without a center speaker:
The test tone will be output automatically from the front speakers and rear speakers alternately.

```
        Front left and right



        Rear left and right
```

15
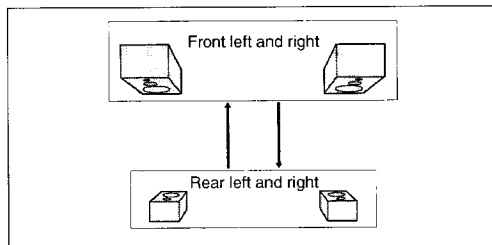
Listening to with Surround Effect

The unit has three surround modes, DOLBY, HALL, and SIMULATED which have been preset in the factory. You can enjoy the surround sound effects by just selecting the surround mode according to the program source.
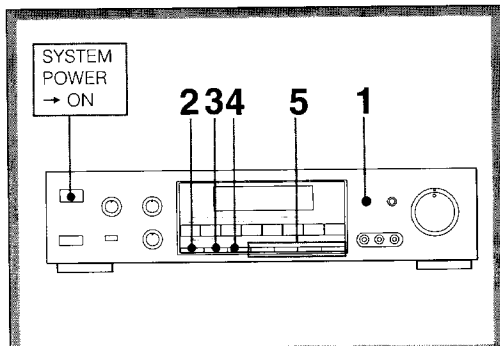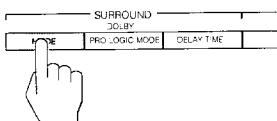

1 Press the SURROUND button so that the SURROUND ON/OFF indicators in the display window shift over to ON.

SURROUND

2 Select a surround mode: DOLBY, HALL, or SIMULATED.

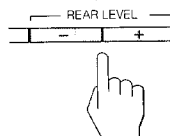**3** Select the DOLBY PRO LOGIC mode according to your speaker system.
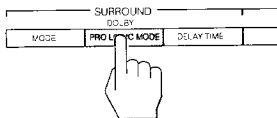
4 Select the delay time: 15 ms, 20 ms, or 30 ms.
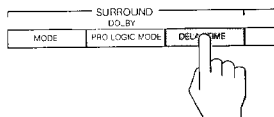
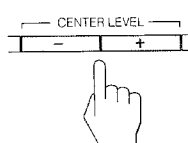**5** Adjust the level of the rear speakers and center speaker.

For rear speakers

REAR LEVEL

For center speaker

CENTER LEVEL

To turn off the surround effect
Press SURROUND button again.
The normal sound without surround effect will resume.

Programming Signals of Other Audio/Video Equipment with RM-P312/RM-P332

The RM-P312/RM-P332 can learn various functions of other remote commanders emitting infrared rays and allows you to control most of audio and video equipment from a distance.

Insert batteries before operation.

2, 4 PROGRAM CLEAR

1, 6

Programmable buttons

RESET

RM-P312

2, 4 PROGRAM CLEAR

1, 6

RESET

RM-P332
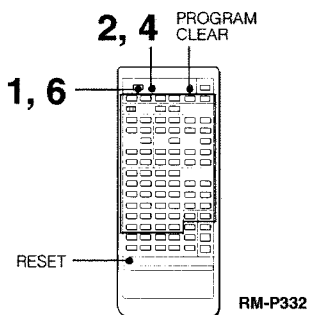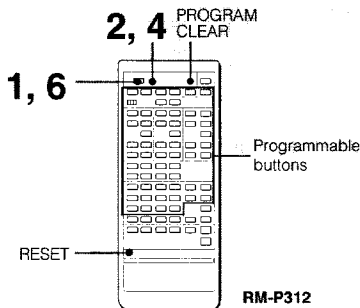
The two remote commanders must:
- be placed straight and head to head.
- be placed at a distance of approx. 5 cm (2 inches).
- not be moved during the programming operation.

Other manufacturer's remote commander

3, 4

1, 6 — LEARN indicator

2, 4

Approx. 5 cm (2 inches)

Programmable Remote Commander RM-P312/RM-P332
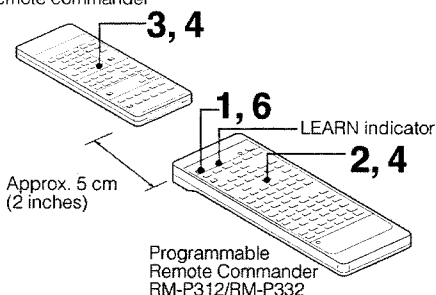
1 Set the mode selector to LEARN.
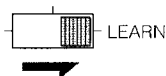
LEARN

2 Press and hold the button which shall "learn" the remote-control signal until the LEARN indicator lights up.

⇨ LEARN

RM-P312/ RM-P332
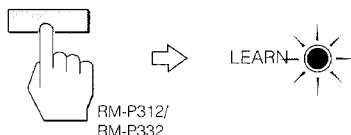
3 Press and hold the button of other manufacturer's remote commander whose signal is to be learned.

Other manufacturer's remote commander
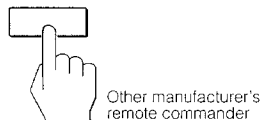
4 Remove your finger(s) from the button(s) after the LEARN indicator goes off.

5 Repeat operation for each button to be programmed.

6 Set the mode selector to USER STD or SONY STD.

USER STD
SONY STD
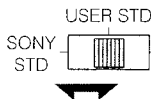
After programming
Be sure to test if the equipment really works with the programmed signals.

Number of signals that the commander can learn
It depends on the format of the signal. If you program signals of Sony equipment, approximately 50 – 60 signals can be programmed.

17

If the LEARN indicator flashes or does not go out in steps 2 – 4.

The memory capacity has become full. This occurs when other signals stronger than the remote-control signals have been stored because the signals were programmed in a noisy environment or the remote commanders were placed too far apart from each other.

→ Clear all the signals following the procedure on the right and program again from the beginning under the proper conditions.

Notes on programming

- Remote-control signals of equipment of manufacturers other than Sony can be programmed only when they are compatible with the infrared wireless remote control system. Since the programmable commander can "learn" only the signals output from another remote commander, it cannot control equipment that does not use a remote commander. Also, note that there are some special remote-control signals that cannot be programmed.
- Do not attempt to use the programmable commander with an air conditioner or other household appliances.

To Program a New Signal onto a Previously Programmed Button

Follow the programming procedure.
The previously programmed signal is cleared and replaced by the new signal.

To clear all programmed signals

1 Set the mode selector to LEARN.
2 Press and hold any button of the programmable area until the LEARN indicator lights up.
3 Press PROGRAM CLEAR until the LEARN indicator flashes and goes off.

Note

It is not possible to clear the programmed content of just one button.

To program a signal onto the ● REC button in the TAPE or VTR section

It is not possible to operate any equipment with only the ● REC button. To program a signal under the ● REC button, press and hold the following buttons at the same time in step 2.

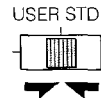|		
TAPE	DECK/VTR REC MODE (REV) (●) or	DECK/VTR REC MODE (FWD) (●)
VTR	DECK/VTR REC MODE (FWD) (●)	
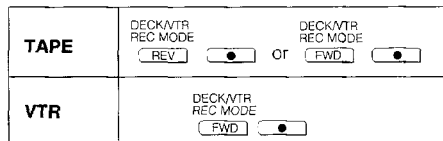
Controlling Equipment

By switching the mode selector as shown below, a single button alternately controls Sony equipment and another manufacturer equipment.

To control Sony equipment

SONY
STD

To control equipment with programmed signals

USER STD

When Sony equipment cannot be remote-controlled

Program the signal in the same way as for equipment from other manufacturers. In this case, even with Sony equipment, set the mode selector to USER STD.

Note on battery

If the LEARN indicator does not light when a button is pressed, the batteries are almost exhausted.
When the batteries are exhausted, the remote commander can no longer operate the unit or programming becomes impossible.
If this happens, replace both batteries with new ones. We recommend the use of alkaline batteries for prolonged use.

If no signal has been programmed

The programmable commander can control Sony equipment even when the mode selector is set to USER STD.

If the equipment works incorrectly

Press RESET.
The programmed contents of the buttons are not cleared by pressing RESET.

Specifications

Amplifier section
Harmonic distortion (Front)

Less than 0.02% (at 1 kHz, 1.0 V,
Surround off)

Frequency response (Surround off)

PHONO: RIAA equalization curve ±1.0 dB
TUNER, CD, ADAPTOR, TAPE/DAT,
VIDEO 1, 2, 3/LD, 4: 20 Hz - 70 kHz ±1.5 dB

Video section
Video input/output

Permissible signal input level

VIDEO 1, 2, 3/LD, 4: 1.5 Vp-p

Output signal level

VIDEO 1, 2, MONITOR: 1 +0.1 Vp-p
(with 1 Vp-p input, measured at MONITOR
OUT)

Impedance (output)

75-ohm unbalanced, negative sync.

Audio section
Input

Input jack	Jack type	Sensitivity	Impedance
PHONO (MM)	Phono	2.0 mV	50 kilohms
TUNER, CD, TAPE/DAT, VIDEO 1, 2, 3/LD, 4, ADAPTOR IN	Phono	150 mV	50 kilohms

Output

Output jack	Jack type	Sensitivity	Impedance
TAPE/DAT, VIDEO 1, 2, ADAPTOR OUT	Phono	150 mV	470 ohms
FRONT, REAR, CENTER	Phono	1.0 V	1 kilohms

Tone controls   BASS: ±7 dB (100 Hz)
                    TREBLE: ±8 dB (10 kHz)

Dolby input sensitivity

500 mV

General
Power requirements

120 V AC, 60 Hz

Power consumption

18 W

AC outlets   4 switched, 480 W/4A max.

Dimensions   Approx. 430 x 105 x 295 mm (w/h/d)
                 (17 x 4¹/₄ x 11⁵/₈ inches)
                 (including projecting parts and controls.)

Mass   Approx. 3.5 kg (7 lb 12 oz)

Accessories supplied

Power amp control cord (1)
Audio connecting cord (2)
Remote commander
  RM-P312 (TA-E731) (1)
  RM-P332 (TA-E731X) (1)
Sony Batteries SUM-3 (NS) (2)

Design and specifications are subject to change without notice.

Troubleshooting

Before proceeding through the check list below, first refer back to the connection and operating procedures. Should any problem persist after you have made these checks, consult your nearest Sony dealer.

Trouble	Remedy
Power cannot be turned on.	• Check if the power cord is disconnected from the power outlet.
Audio No audio.	• Check for faulty connection. (See pages 4 to 6.) • Check for short-circuited speaker terminals. • Check that the function selectors are correctly selected. • The shorting plugs of the ADAPTOR jacks are disconnected. • Check that the connected equipment, such as a graphic equalizer is turned on.
No sound or sound at very low level is heard from rear speakers.	• Check if the SURROUND mode selector is set to off – SURROUND OFF indicator is lit. (See page 13 to 16.) • Check if the volume level of the rear speakers is set to minimum. • Check if the monaural program source is played back in Dolby surround mode. • Check if the 3 CH. mode is selected in the DOLBY Pro Logic mode. (See page 13.)
No audio from one channel.	• Check if the BALANCE control is set to an extreme position. • Check if the speaker cord or connection cord is disconnected.
Distorted audio.	• Check if the audio volume setting is above the maximum permissible input of the speakers.
Obscure instrument positioning, which lack of bass sound.	• Check if the positive (+) speaker terminal on the main body is not connected to the negative (–) terminal on the speaker, and vice versa.
Hum or noise.	• Check that the grounding wire of the turntable is connected securely. • Check that the connection cords are inserted securely into jacks.
Switching on DBFB does not affect the sound	• Source sound does not contain low frequency sound. • DBFB reinforces low frequencies only.
Video No video.	• Check that the connections are correct. (See page 5.) • Check that the function selectors are correctly selected.
Unclear video, low image quality.	• Check if there is any nearby source of noise.
Remote commander Remote-control operation cannot be performed.	• Check that the batteries are inserted correctly. (See page 8.) • Check if there is any obstacle between the programmable commander and the AV control amplifier. (See page 7.) • Check if the batteries are exhausted. • Check if the mode selector is set to USER STD in remote-control operation using programmed signals. (See page 18.)
The remote-control signal cannot be programmed. The LEARN indicator does not light.	• Place both remote commanders apart from the source of noise. • Check if the batteries are exhausted. (See page 18.)
The LEARN indicator goes off after flashing.	• The internal memory capacity is full. (See page 17.)